## **CLAIMS**

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1.- An un-packaged or semi-packaged, electrically tested electronic device, free from infantile mortality, characterized in that it comprises a silicon platelet or die (11) having a top surface and a bottom surface, in which an integrated circuit is realized externally accessible through a plurality of connection pads and an array of connection pins (10; 13; 14) which are mechanically and removably connected to said silicon die (11) by connection means and are electrically connected to the connection pads of said silicon die (11) by electric connection means (12).

2.- An electronic device according to claim 1, characterized in that said connection pads are arranged at the edges of one side of the silicon die (11) and said connection pins are affixed to the edges of the opposite side of said die (11).

3.- An electronic device according to claim 1, characterized in that said connection pads are arranged along a central line on a side of said silicon die (11) and said connection pins (10; 13) are attached to the edges of the same side of the die (11).

4.- An electronic device according to claim 2 or 3, characterized in that said connection means for removable attachment of said pins (10; 13) to said silicon die (11) are a double-side adhesive tape or a glue.

5.- An electronic device according to claim 4, characterized in that said connection pins (13) are of pre-formed type in order to accommodate the thermal expansion differences between the silicon die (11) and the circuit board on which it is mounted.

- 6.- An electronic device according to claim 1, characterized in that said array of connection pins are realized as metallized strips (14) on a board of plastic material (15) removably attached to said silicon die (11) by means of a double-side adhesive tape or glue.
- 7 An electronic device according to claim 1, characterized in that said pins are obtained by cutting a continuous strip support (16) on which said silicon dies (11) are mounted.
- 8.- An electronic device according to claim 6 or 7, characterized in that said connection pins are distributed on all four side edges of the die.

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12 9.- An electronic device according to claim 8, characterized in that said electric connection means between said connection pins (10; 13; 14) and the connection pads of said silicon die are made by welded micrometric bonding wires (12). 10.- An electronic device according to claim 9, characterized in 5 that said semi-package covers the surface of the die where said connection pads are arranged together with their connections to the pins made by said bonding wires (12), as well as all flanks of the die, leaving the opposite surface of the die exposed. 11.- An electronic device according to claim 9, characterized in 10 that it includes a three or more point, conductive bar aimed at distributing the electric ground potential or power supply to three or more points of the die. 12.- A process for manufacturing electrically tested electronic devices, free from infantile mortality, characterized in that, 15 manufacturing un-packaged devices, it comprises the following steps: cutting the dies, a) mounting the dies according to requested b) electronic or physical map upon the metal multiple pattern support, by means of glues or double side 20 adhesive tapes, connecting the connection pads of the die C) to the metal support according to the desired preoutlines, by means established 25 micrometric wires, cutting and separating the metal support, d) electrically testing, e) insertion into the burn-in sockets, f) burning-in, g) 30 finally electrically testing, h) i) packing in reel or trays.

> 13.- A manufacturing process according to claim 12, characterized in that, as far as the semi-packaged devices are concerned, the semipackaging operation is carried out with resin immediately after connecting the connection pads (step c)) and before cutting and separating the support (step d)) and, if necessary, it is followed by a resin curing operation.

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14.- A manufacturing process according to claim 13, characterized in that said semi-packaging is carried out in a mold by utilizing a liquid

resin.